

Commonwealth Edison Company's Infrastructure Investment Plan

Attachment 2: 2013 Investment Plan

April 1, 2013

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Executive Summary

Plan Overview

On November 8, 2011, Commonwealth Edison Company (“ComEd”) filed its proposed performance-based formula rate, Rate DSPP – Delivery Service Pricing and Performance (“Rate DSPP”), with the Illinois Commerce Commission (“Commission”) pursuant to Section 16-108.5 of the Public Utilities Act (“Act”). The Commission commenced Docket No. 11-0721 to review that filing. In making that filing, ComEd confirmed that it elected to become a “participating utility”, and committed to undertake the investments described in Section 16-108.5(b) of the Act. Section 16-108.5(b) also called on ComEd, within 60 days of such filing, to submit a plan for satisfying its infrastructure investment program commitments, which must include information regarding scope, schedule and staffing. ComEd submitted its Infrastructure Investment Plan (“Plan”) to the Commission on January 6, 2012. Section 16-108.5(b) further requires ComEd, no later than April 1 of each subsequent year, to submit to the Commission a report that includes any updates to the Plan, a schedule for the next calendar year, the expenditures made for the prior calendar year and cumulatively, and the number of full-time equivalent jobs created for the prior calendar year and cumulatively.

Accordingly, ComEd submits to the Commission together with its 2013 Annual Update to the Plan (“2013 Annual Update”), this 2013 Investment Plan (“2013 Plan”), for

informational purposes, as prescribed by the Act. Consistent with ComEd's Plan, this 2013 Plan organizes individual projects under two broad categories of investment:

Reliability-Related Investments: Investments in electric system upgrades, modernization projects, and training facilities; and

Smart Grid-Related Investments: Investments in Smart Grid electric system upgrades and transmission and distribution infrastructure upgrades and modernization.

This 2013 Plan includes an estimated cumulative total of \$148 million of capital investment and associated expense in electric system upgrades, modernization projects, and training facilities ("Reliability Related Investments"). The 2013 Plan also includes an estimated cumulative total of \$79 million of capital investment and associated expense in Smart Grid-Related Investments.

In the event that Section 16-108.5 becomes inoperative or Rate DSPP is terminated, then the Plan, including but not limited to all programs and investments, will also become inoperative and terminate immediately.

Summary 2013 Plan Scope

The 2013 Plan provides information on scope, schedule, budget, staffing, and units of work that are planned to be completed in 2013 in association with ComEd's Plan.

Reliability-Related Investments. These programs are described in detail in Section I of the 2013 Plan, and include, but are not limited to, the following specific programs briefly described below:

- **Underground Residential Cable (“URD”) injection and replacement.** This program is designed to remediate an estimated 460 miles of bare concentric cable in 2013, some of which was installed as early as 1966. This work will reduce long duration outages primarily experienced in residential subdivisions.
- **Mainline cable system refurbishment and replacement.** As noted in ComEd’s Plan, this is the most complex of all the Reliability-Related Investments. This program includes planned assessment and refurbishment of an estimated 6,000 manholes, replacement of an estimated 83 miles of mainline underground cable, and testing of an estimated 120 sections of mainline cable over the course of 2013. This program is primarily targeted at the testing and replacement of lead cable in urban areas.

Because remediation scope is based on inspection results, the complex nature of the underground system, interrelationship of multiple circuits within a manhole, and certain potential moratoriums on work, this program continues to contain the highest degree of scope uncertainty of all the Reliability-Related investments. This 2013 Plan incorporates insights gained through implementation in 2012, as will future-year plans.

- **Ridgeland 69kV cable replacement.** This program involves planned replacement of an estimated 1.4 miles of high voltage (69kV) underground cable in 2013, a majority of which was installed in the early 1950's, and some as early as 1927.
- **Construction of training facilities.** This program provides for planned construction of two new facilities – one in Chicago and one in Rockford – to provide electric and customer operations training. These facilities will provide the ability to offer year-round practical, hands-on training to ComEd's field employees and will enable them to practice classroom theory on real equipment and technology year-round. No investments in construction of training facilities are planned in 2013 in association with ComEd's Plan.
- **Wood pole inspection, treatment, and replacement.** There are approximately 1.5 million wood poles on the ComEd system. This program entails planned inspection and treatment of an estimated 149,000 wood poles, and replacement or reinforcement of an estimated 4,000 poles over the course of 2013. This program will reduce customer interruptions due to wood pole failures by programmatically assessing the strength and integrity of ComEd's wood poles.
- **Storm hardening.** This program is designed to further reduce the susceptibility of circuits to storm-related damage, and will include deployment of a variety of engineered solutions including, but not limited to, overhead-to-underground conversion, installation of tree-resistant conductors, and additional vegetation management. In order to optimize customer benefits, circuits will be prioritized

based on historical susceptibility to storm-related damage. Engineered solutions will be designed specifically for each circuit.

More detailed descriptions for each of these, including scope, schedule, capital budget, staffing and units of work are included in Section I of this document.

Smart Grid Electric System Upgrades. These programs are described in detail in Section II of this 2013 Plan, and include, but are not limited to, the following specific programs briefly described below:

- **Distribution Automation (“DA”).** DA technology uses “sectionalizing” devices and remote communications to detect issues on the distribution system and automatically re-route power to minimize the number of customers impacted. This is commonly referred to as the self-healing nature of the Smart Grid. ComEd’s DA program includes installation of an estimated 630 DA devices over the course of 2013, as well as the necessary secure communications infrastructure.
- **Substation micro-processor relay upgrades.** This program is designed to modernize two ComEd substations in 2013, including the upgrade of electro-mechanical protective relays to modern microprocessor-based devices, replacement of aging circuit breakers, two-way communications between ComEd’s control center and each substation, and installation of technology to remotely monitor the health of ComEd’s largest assets, its transformers. This program provides for fault detection, remote asset monitoring and improved site security. Partial upgrades may be applied across the service territory. ComEd has over 250 transmission-fed substations, and over 800 substations in total.

- **Smart Meters.** At the completion of this program, all retail meters on the ComEd distribution system will have been replaced with Smart Meters, including deployment of an Advanced Metering Infrastructure (“AMI”), which provides a two-way communications infrastructure to support other customer services and Smart Grid applications. Expected benefits include reductions in the number of estimated bills, unaccounted for energy, and consumption on inactive meters. Deployment of AMI will occur pursuant to the Advanced Metering Infrastructure Deployment Plan (“AMI Plan”), which was approved by the Commission on December 5, 2012, and the Smart Grid Advanced Metering Annual Implementation Progress Report filed on April 1, 2013 (“2013 AMI Report”).
- **Associated cyber secure data communications network.** A cyber-secure data communications infrastructure will be incorporated into each functional area of the Smart Grid. It includes implementation of a robust security model that is aligned with industry best practices and existing security standards. This security model will address confidentiality, integrity, availability and non-repudiation of data transport through the network.

More detailed descriptions for each of these, including scope, schedule, capital budget, staffing and units of work are included in Section II of this 2013 Plan.

Summary 2013 Plan Schedule

In order to establish a framework to plan for and schedule future work while efficiently addressing inherent change and uncertainty, ComEd is employing a proven iterative planning structure. Under this structure, work plans will be developed on a

rolling basis for each quarter of the investment period. Each work plan will outline a series of tasks comprising: project and work planning, design, regulatory and public affairs functions where required (e.g., permitting), project implementation, and review. This periodic quarterly cycle is illustrated throughout this 2013 Plan in a series of Gantt charts showing repeating cycles of work planning and management activity. Please note that while this work planning and management cycle repeats on a quarterly basis, the activities associated with each quarter's iteration may take longer than a quarter to complete. This structure allows ComEd to implement its multi-year Plan effectively and rigorously, while retaining the required flexibility.

The individual program schedules included in this 2013 Plan explain when each program is planned to start and end. Most include both rolling quarterly work plan process and a high-level task list. The Gantt charts that appear in this 2013 Plan are illustrative and are not intended to establish specific milestones. It is recognized that scope priorities will be adjusted over the course of the programs as new information is obtained. Detailed 2013 planned schedules for specific program areas are provided in the sections that follow.

Summary 2013 Plan Budget

The program budget identifies the planned monthly capital cost for each program. The 2013 Plan budget total is estimated to be \$227 million in incremental capital investments plus associated expenses. Table A.1 in Appendix A presents a summary of the 2013 Plan's estimated total capital budget by program, and Figure A.2 in Appendix A presents the estimated total capital budget by month associated with the

2013 Plan. Note that the costs by month shown in Figure A.2 exclude investments related to the Smart Meter Program, which will occur pursuant to the Advanced Metering Infrastructure Deployment Plan (“AMI Plan”), which was approved by the Commission on December 5, 2012, and the 2013 AMI Plan update filed on April 1, 2013.

Summary 2013 Program Staffing

Program staffing identifies the 2013 full-time equivalents (“FTEs”) required for completion of program scope of work. FTEs have been calculated by taking the estimated Direct and Contractor worker-hours to execute the Plan and dividing by 2,080 hours. Estimated worker-hours for Direct jobs and Contractor positions are each composed of the following two sub-categories:

1. **Assigned:** Worker-hours assigned to specific work orders associated with Plan program scopes of work; and
2. **Support:** Worker-hours charged on timesheets in support of the Plan

Support FTEs are not allocated to specific Plan scopes of work, and are not presented in the FTE sections for individual programs in this 2013 Plan. As explained in the 2013 Annual Update, this is a change in format from ComEd’s Plan, in which Support FTEs were allocated to specific scopes of work proportionally, based on estimated investments for specific scopes of work. Rather, Figure A.3 in Appendix A presents the estimated Assigned FTEs and Support FTEs to execute the entire scheduled scope of work associated with the 2013 Plan. This revised format for presentation of Assigned FTEs and Support FTEs is more consistent with ComEd’s

timekeeping approach and ultimately a more accurate representation of how Support FTEs are allocated to Plan execution. Estimates for Support FTEs in the 2013 Plan are based on the 2012 actual proportion of Assigned FTEs to Support FTEs.

Job classifications associated with Assigned FTEs and Support FTEs may include, but are not limited to, engineers, technicians, work planners, finance support, safety support, scheduling support, legal support and craft. FTEs are not defined as employee head counts, and should not be confused with employment levels and trends.

The estimated FTEs presented in this 2013 Plan include Direct and Contractor FTEs, however, they do not include any Induced FTEs.

Summary 2013 Plan Quantity of Units

The program quantity of units describes the estimated number of work units, where applicable, that are planned to be completed in 2013 for each program area. Units of work for each program are discussed, as applicable, in that program's respective section of the 2013 Plan. All units of work associated with the identified work scopes are included in the estimated quantities in this document, and will be counted towards achievement of the 2013 Plan goals. However, this does not limit additional units from being performed as part of the baseline spend at ComEd's discretion. The monthly targets listed are not intended to be firm milestones, but rather to provide directional guidance towards accomplishment of the annual goals.

SECTION I: Reliability-Related Investments

SECTION I.A: Underground Residential Cable (“URD”) Injection and Replacement

I.A.1: 2013 Program Scope

ComEd's URD system has approximately 8,700 miles of bare concentric neutral URD cable on its system that was installed between 1966 and 1985, which is primarily used to serve residential and commercial areas. The URD Injection and Replacement program excludes mainline direct buried cable, which is covered under the Mainline Cable System Refurbishment and Replacement program described in Section I.B below. URD cable failures mainly occur within the population of bare concentric neutral URD cable. As this cable ages, the number of annual failures in this type of cable has been trending up in recent years as this cable continues to age. ComEd anticipates that it will be necessary to inject or replace approximately 4,400 miles of the problematic cable over the course of the program. ComEd anticipates that, by the end of the program, the number of annual failures in this type of cable will be significantly reduced. This reduction in faults will reduce long-duration outages primarily experienced in residential subdivisions. The program consists of two major components:

- URD Cable Injection
- URD Cable Replacement

Each of these components is described in more detail below.

URD Cable Injection

Cable injection fills in cable insulation voids and avoids cable failures. In general, URD cables that are candidates for injection typically have intact concentric neutral conductors, are not solid cable or strand-filled cable, and have a low number of cable splices. Where it is practical, cable injection is typically a more cost beneficial way to avoid URD cable failures than cable replacement. Based on ComEd's past experience with URD cable injection, it is expected that during 2013 an estimated 97 miles of URD cable will be injected

URD Cable Replacement

URD cables that cannot practically or economically be injected will be replaced on a schedule prioritized to replace the worst-performing URD cables first. It is expected that during 2013 an estimated 364 miles of URD cable will be replaced.

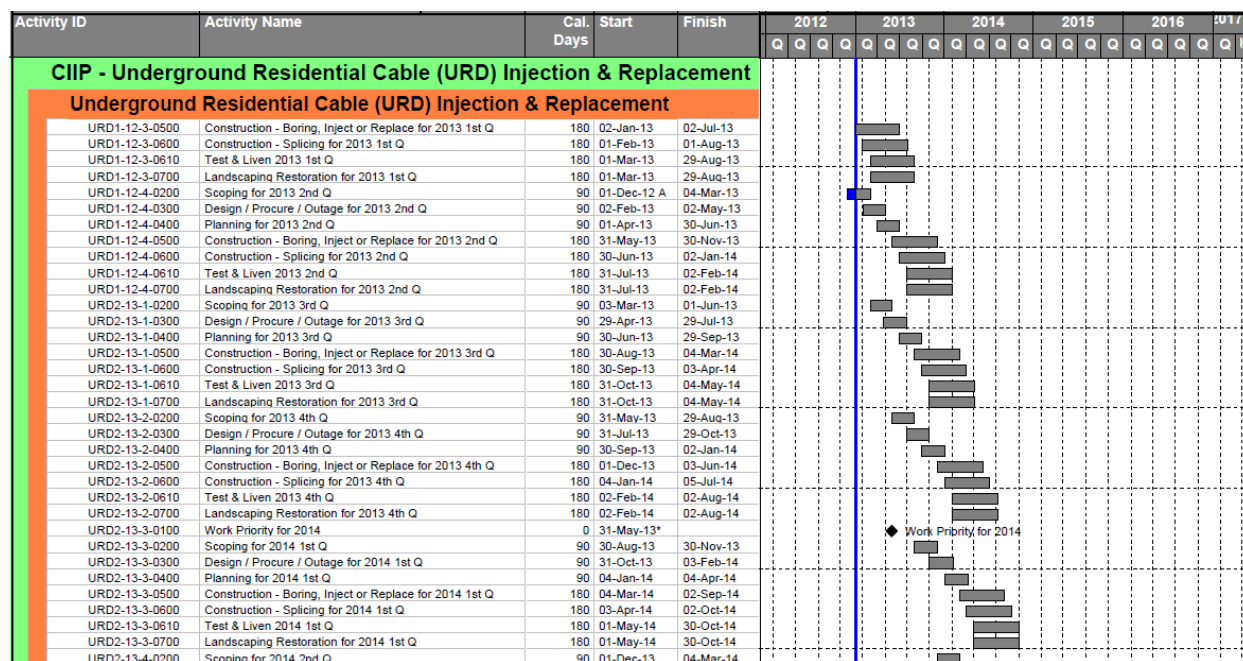
I.A.2: 2013 Program Schedule

Figure I.A.2 presents the planned 2013 schedule to complete the URD Injection and Replacement program. Estimates of cost and units of work, and schedules for that work, may evolve over time. The schedule consists of summary level tasks for the scope of work associated with the 2013 Plan, including the following key tasks:

- Mobilization and ramp-up
- Establish priority for the calendar year
- Perform scoping
- Perform design tasks, procure material, and identify required outages in schedule

- Planning (develop work packages and secure permits)
- Construction – Boring, injection or replacement
- Construction – Splicing where required
- Test and liven
- Landscaping restoration

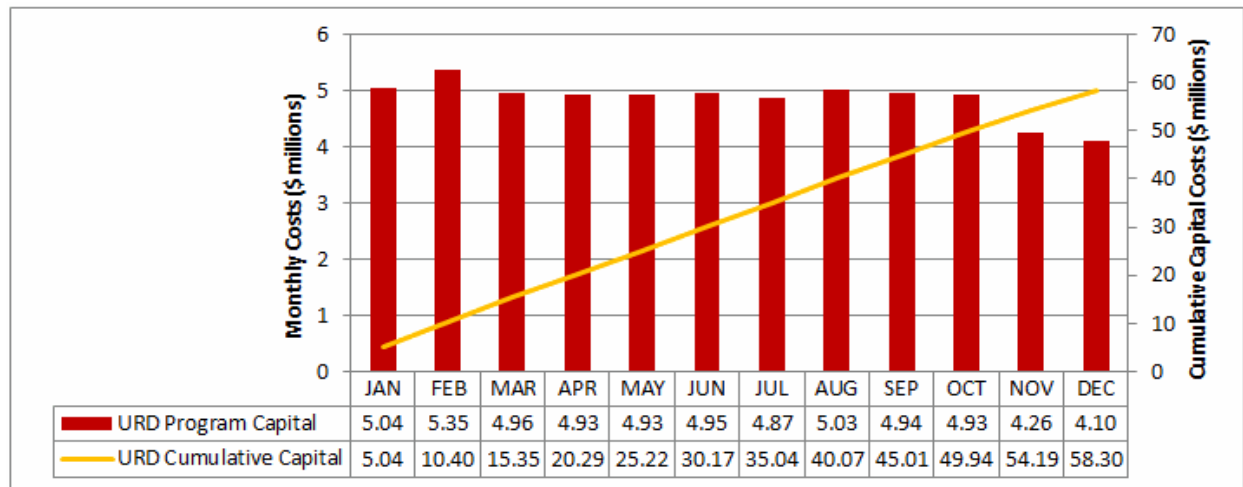
FIGURE I.A.2: URD INJECTION AND REPLACEMENT 2013 SCHEDULE



I.A.3: 2013 Program Budget

Figure I.A.3 represents the estimated 2013 capital budget for the URD Injection and Replacement program. ComEd estimates the 2013 program cost to be capital investments of \$58 million plus associated expenses. Estimates of cost, units of work, and schedules for that work may evolve over time.

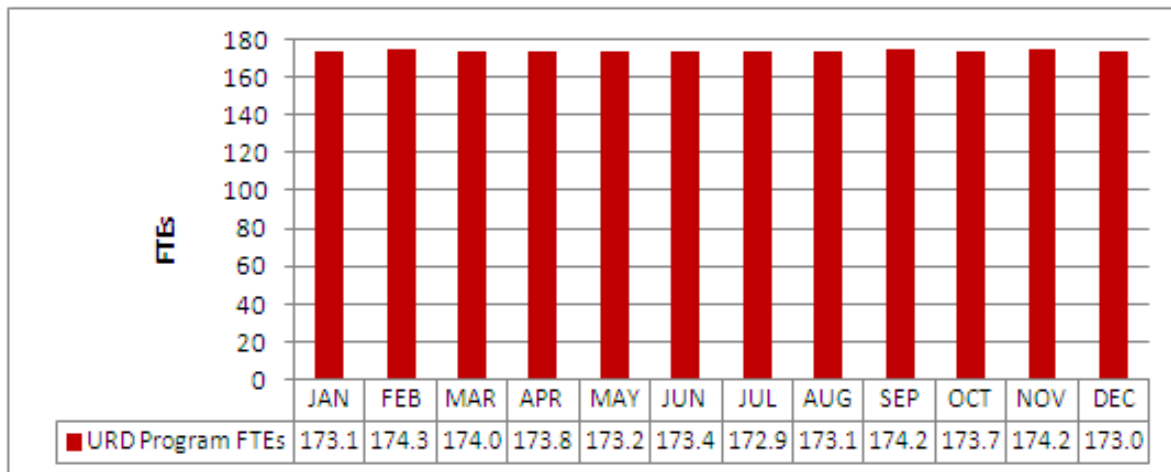
FIGURE I.A.3: URD INJECTION AND REPLACEMENT 2013 CAPITAL BUDGET



I.A.4: 2013 Program FTEs

Figure I.A.4 presents the estimated Assigned Direct and Assigned Contractor FTEs required to perform the specific scheduled 2013 scope of work. Assigned FTEs have been calculated by taking the estimated worker-hours assigned to execute the scope of work and dividing by 2,080 hours. The estimated FTEs presented in Figure I.A.4 include Assigned FTEs, however, they do not include Support FTEs or Induced FTEs.

FIGURE I.A.4: URD INJECTION AND REPLACEMENT 2013 FTEs



I.A.5: 2013 Program Units

Figure I.A.5.A shows the miles of URD cable estimated to be injected in 2013. This chart will serve as a tracking mechanism over the course of 2013, and reflects the scope of work planned to be accomplished, as well as the scope of work left to be performed. It is estimated that approximately 97 miles will be injected in 2013. Estimates of cost, units of work, and schedules for that work may evolve over time.

FIGURE 1.A.5.A: URD CABLE INJECTION 2013 UNITS

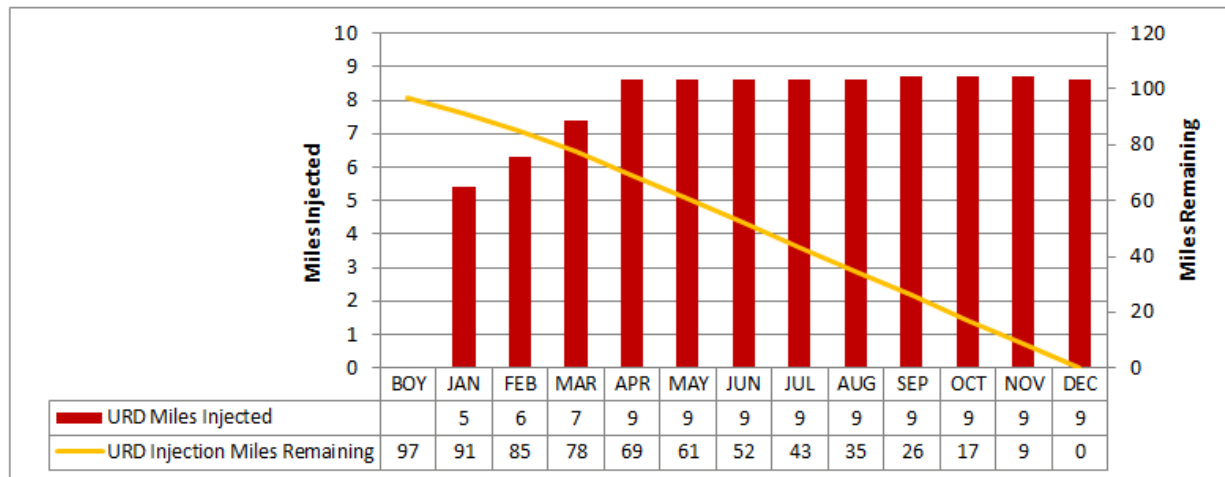
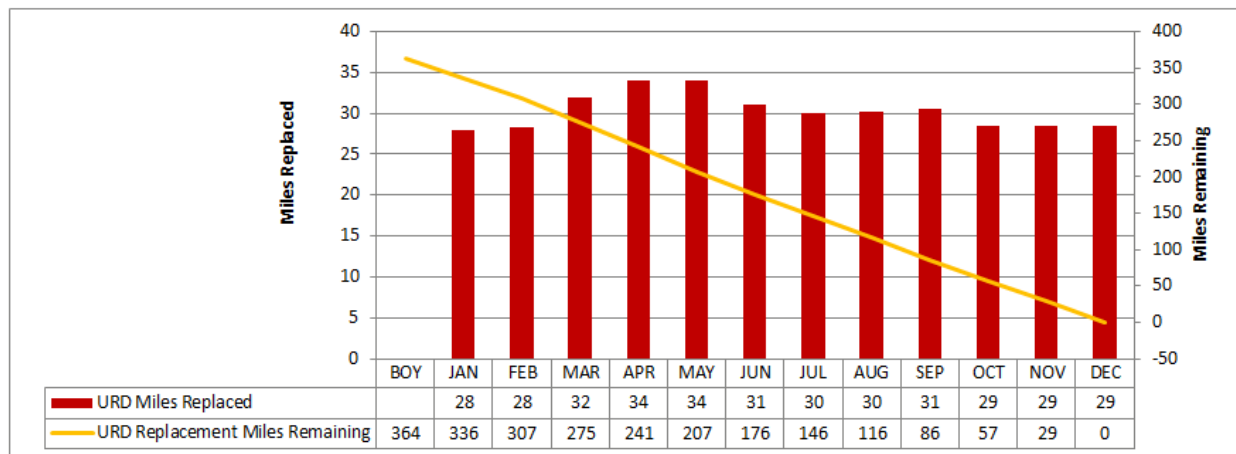


Figure I.A.5.B shows the miles of URD cable estimated to be replaced in 2013. This chart will serve as a tracking mechanism over the course of 2013, and reflects the scope of work planned to be accomplished as well as the scope of work left to be performed. It is estimated that approximately 364 miles will be replaced during 2013. Estimates of cost, units of work, and schedules for that work may evolve over time.

FIGURE I.A.5.B: URD CABLE REPLACEMENT 2013 UNITS



SECTION I.B: Mainline Cable System Refurbishment and Replacement

I.B.1: 2013 Program Scope

The ComEd mainline underground system includes approximately 8,300 miles of cable installed in conduit systems or direct buried. Mainline cable system refurbishment and replacement has the most complex scope of work of all the programs. The scope is composed of three main work categories:

- Manhole assessment and cable system refurbishment
- Cable replacement
- Cable testing

The accomplishment of this scope is highly dependent on the ability to obtain necessary permits and to schedule equipment outages. Certain periods of time or certain work restrictions, such as summer moratoriums, may limit the types of work that can be performed due to the need to maintain system configuration. Such periods will be reflected in ComEd's annual or summer critical work plans. Because remediation scope is based on inspection results, the complex nature of the underground system, interrelationship of multiple circuits within a manhole, and certain potential moratoriums on work, this program continues to contain the highest degree of scope uncertainty of all the Reliability-Related Investments.

Manhole Assessment and Cable System Refurbishment

ComEd has approximately 32,000 manholes on its system. Over the course of 2013, ComEd plans to assess an estimated 6,025 manholes and perform refurbishment within the parameters of the Act.

Assessment includes the evaluation of the overall condition of the manhole, cables, and cable support systems. Refurbishment includes replacing or repairing cable systems in the manhole, and addressing other structural issues as required. Manhole structural work may range from minor refurbishment to replacement of an entire manhole.

Concurrent with manhole assessments, cable joint issues discovered within the manholes (e.g., bulging or leaking joints) will be addressed primarily with cable replacement. As assessments are performed, work plans will be generated to address the findings.

Cable Replacement

Replacement criteria will be based, in part, on the method of original installation. Replacement of cable in conduit will be based on manhole assessment findings. Direct buried mainline cable will either be replaced without testing, or replaced after testing, based on cable length and prior fault history. It is estimated that approximately 83 miles of mainline cable will be replaced in 2013. This estimate is based on assumptions concerning inspection results, which will be adjusted over time as actual data becomes available. Because of their inherent reliance on assumptions, early estimates of cable replacement contain a high degree of uncertainty and are not intended to reflect firm scope.

Cable Testing

Underground cable is divided into sections largely as a result of limits placed on cable lengths by the manufacturers and limits due to the physical configuration of the circuits.

An estimated 121 circuit sections will be selected in 2013 for Very Low Frequency (“VLF”) Testing per the Institute of Electric and Electronics Engineers (“IEEE”) standard 400.2 to validate the serviceability of the section of cable following manhole refurbishment and mainline cable replacement. This represents a change in approach from the Plan based on 2012 experience, by eliminating a pre-test prior to manhole refurbishment and mainline cable replacement. The scope is now focused on performing “proof tests” at the conclusion of repair activities to validate the serviceability of the section of cable, diagnostic testing for long direct buried sections, and some re-tests following a failure of proof tests or diagnostic tests. It is estimated that cable tests will result in replacement of cable sections, which are included in the estimate shown in the “Cable Replacement” section above. This estimate is based on assumptions concerning inspection results, which will be adjusted over time as actual data becomes available. Because of their inherent reliance on assumptions, early estimates of cable testing contain a high degree of uncertainty and are not intended to reflect firm scope.

I.B.2: 2013 Program Schedule

Figure I.B.2.A presents the estimated 2013 schedule to complete the Manhole Assessment and Cable System Refurbishment program. Estimates of cost, units of work, and schedules for that work, may evolve over time. The schedule consists of high level tasks for the scope of work associated with the 2013 Plan, including the following key tasks:

- Mobilization and ramp up
- Establish manhole inspection priority for the calendar year
- Perform scoping and configuration analysis; review sequence for capacity issues
- Perform design tasks, procure material, and identify required outages in schedule; include identified joint issues in evaluation
- Planning (develop work packages and secure permits)
- Construction - Manhole cleaning (environmental) if required
- Construction - Conduct manhole assessments and refurbish cable systems as necessary
- Evaluate results
- Develop cable replacement plans as necessary

Figure I.B.2.B presents the estimated 2013 schedule to complete the Mainline Cable Replacement program. The schedule consists of high level tasks for the scope of work associated with this 2013 Plan, including the following key tasks:

- Mobilization and ramp-up
- Establish replacement priority for the calendar year
- Perform scoping and configuration analysis; review sequence for capacity issues
- Perform design tasks, procure material, and identify required outages in schedule; include identified joint issues in evaluation
- Planning (develop work packages and secure permits)
- Construction – Install conduit when required
- Construction – Pull / install cable and terminal pole work
- Construction – Pull / install cable
- Construction – Install dead joints
- Test cable and liven

Figure I.B.2.C presents the estimated 2013 schedule to complete the Mainline Cable Testing program. The schedule consists of high level tasks for the scope of work associated with this 2013 Plan, including the following key tasks:

- Ramp-up period
- Establish testing priority for the calendar year
- Perform scoping and configuration analysis; review sequence for capacity issues
- Perform design tasks, procure material, and identify required outages in schedule; include identified joint issues in evaluation

- Planning (develop work packages and secure permits)
- Perform testing
- Evaluate results
- Develop work program for testing failures (*i.e.*, cable replacement) based on results

FIGURE 1.B.2.A: MANHOLE ASSESSMENT 2013 SCHEDULE

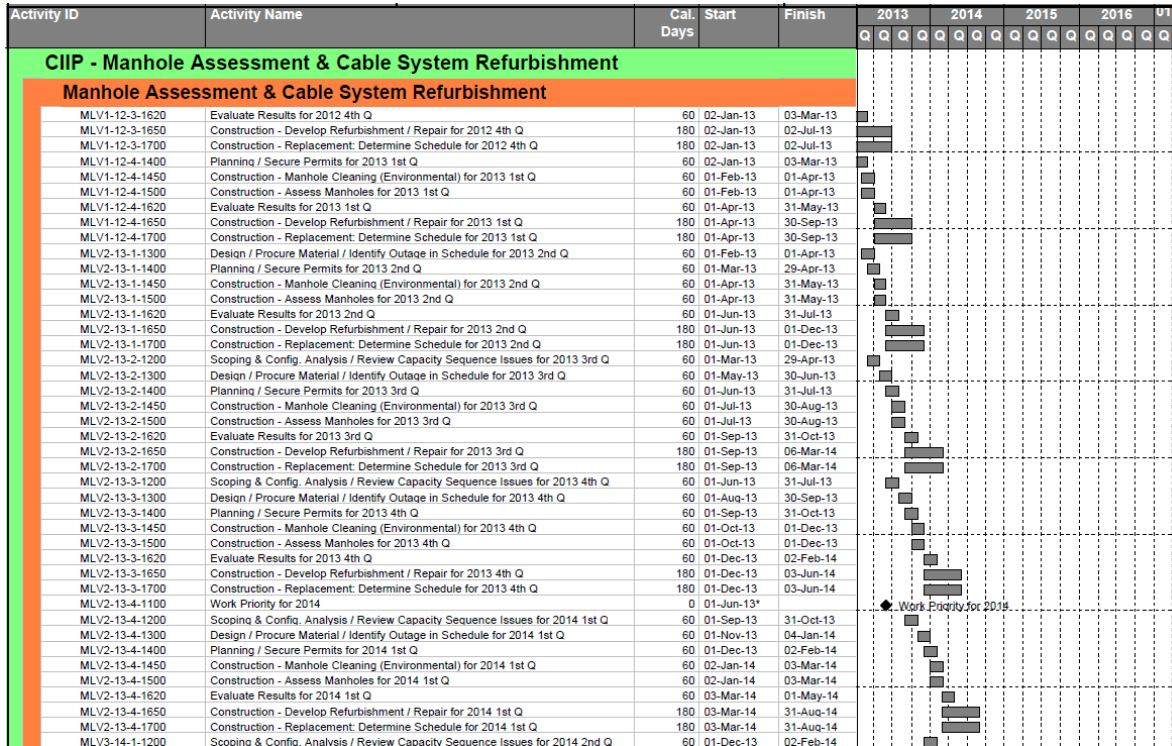


FIGURE 1.B.2.B: MAINLINE CABLE REPLACEMENT 2013 SCHEDULE

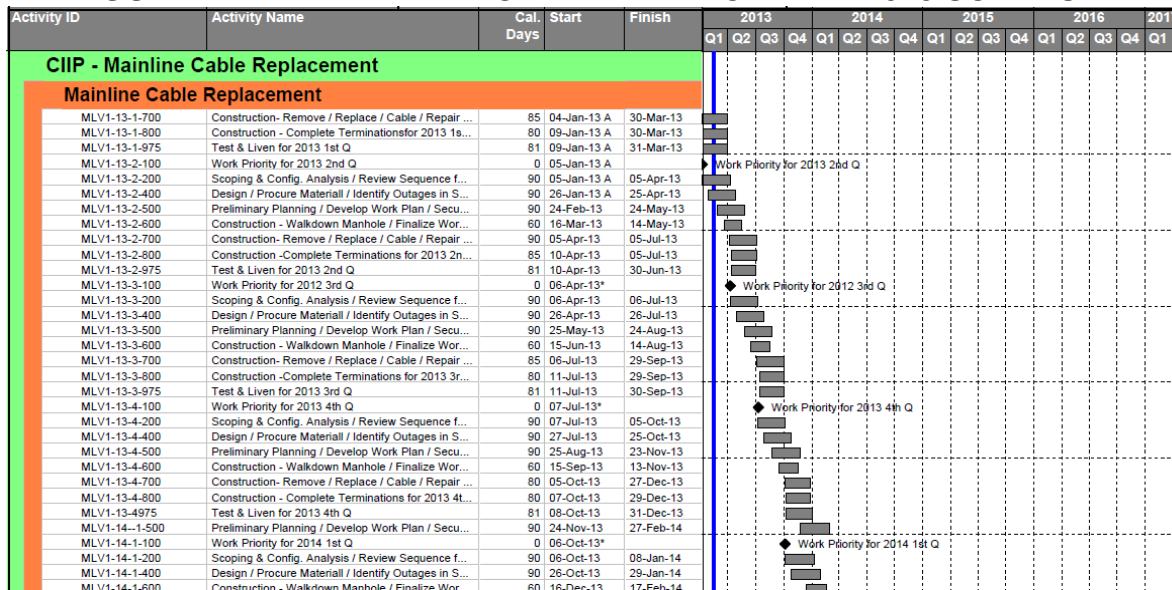
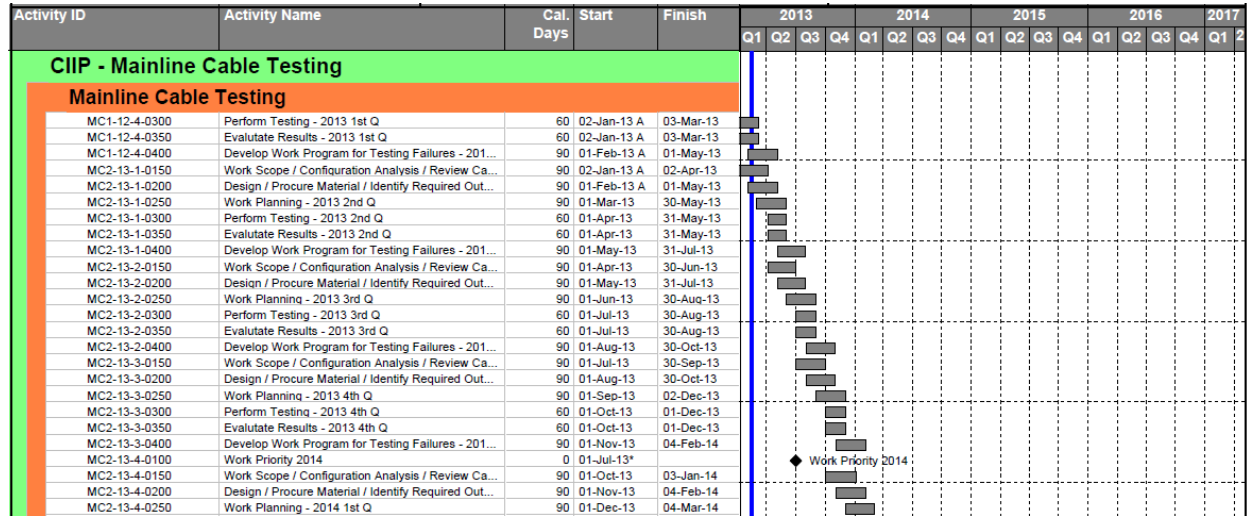


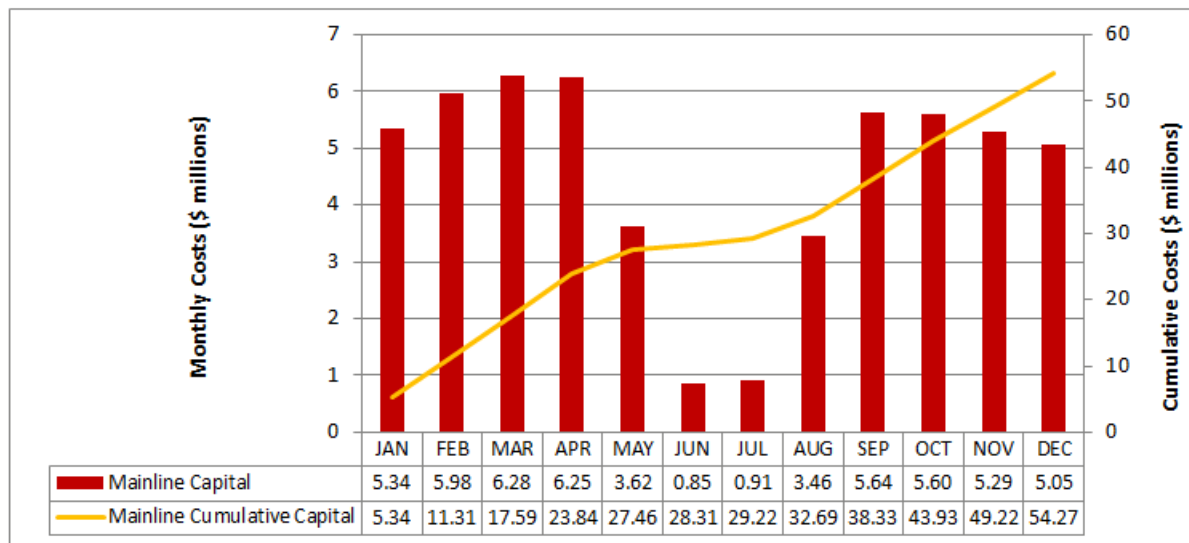
FIGURE 1.B.2.C: MAINLINE CABLE TESTING 2013 SCHEDULE



I.B.3: 2013 Program Budget

Figure I.B.3 presents the estimated 2013 capital budget for the Mainline Cable System Refurbishment and Replacement program. ComEd estimates the 2013 program cost to be capital investments of \$54 million, plus associated expenses. Estimates of cost, units of work, and schedules for that work may evolve over time.

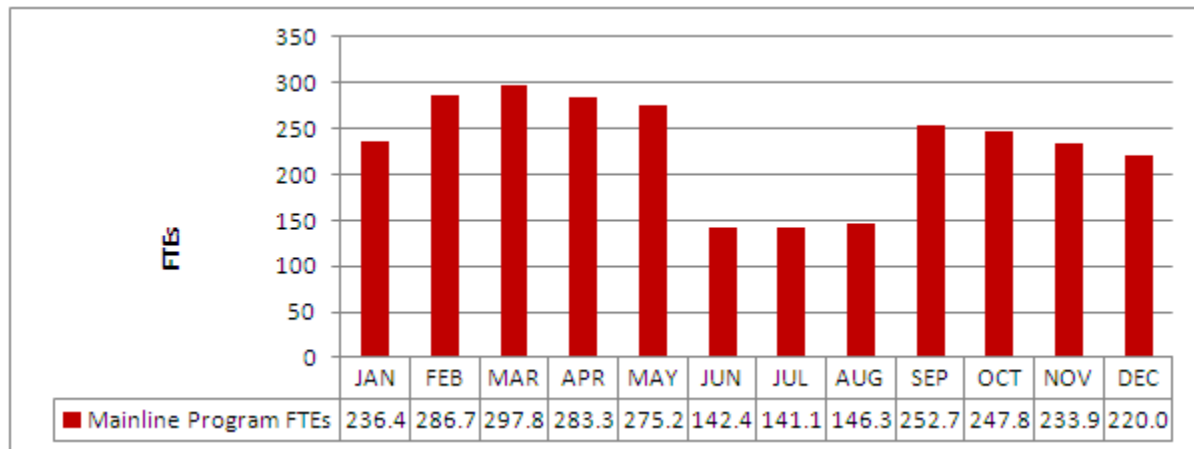
FIGURE I.B.3: MAINLINE CABLE SYSTEM REFURBISHMENT AND REPLACEMENT 2013 CAPITAL BUDGET



I.B.4: 2013 Program FTEs

Figure I.B.4 presents the estimated Assigned Direct and Assigned Contractor FTEs required to perform the specific scheduled 2013 scope of work. Assigned FTEs have been calculated by taking the estimated worker-hours assigned to execute the scope of work and dividing by 2,080 hours. The estimated FTEs presented in Figure I.B.4 include Assigned FTEs; however, they do not include Support FTEs or Induced FTEs.

FIGURE I.B.4: MAINLINE CABLE SYSTEM REFURBISHMENT AND REPLACEMENT 2013 FTEs

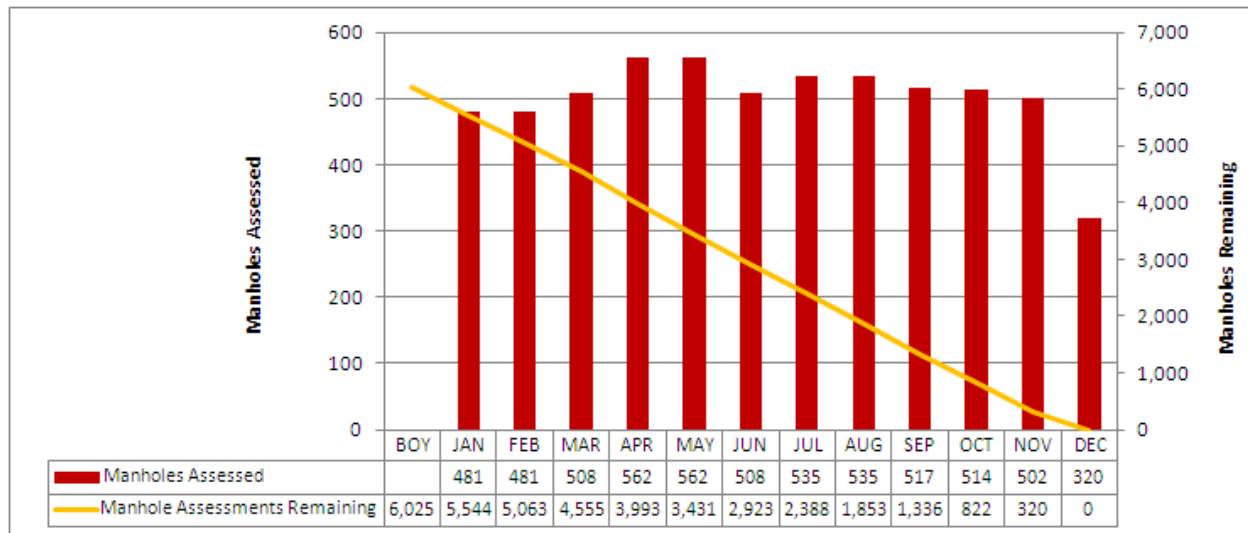


I.B.5: 2013 Program Units

Manhole Assessment and Cable System Refurbishment

Figure I.B.5.A shows the estimated number of manhole assessments to take place over the course of 2013 at 6,025. This chart will serve as a tracking mechanism over the course of the year, and reflects the scope of work planned to be accomplished as well as the scope of work left to be performed. Estimates of cost, units of work, and schedules for that work may evolve over time.

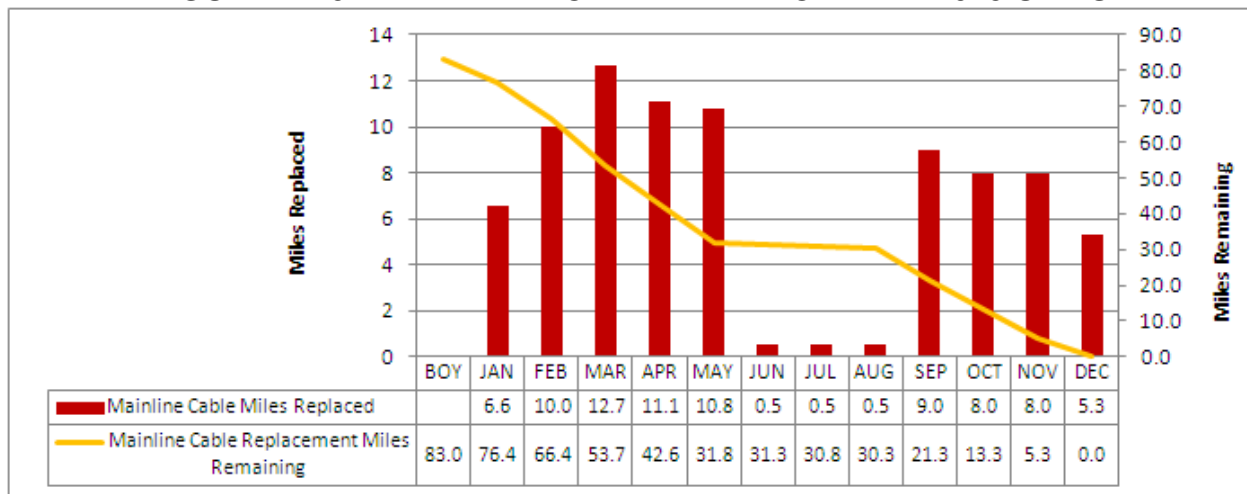
FIGURE I.B.5.A: MANHOLE ASSESSMENT 2013 UNITS



Cable Replacement

Figure I.B.5.B shows the estimated miles of Mainline cable to be replaced in 2013. It is expected that some cables will be replaced based on historical performance of the cable, without the need for prior VLF testing. This chart will serve as a tracking mechanism over the course of the year, and reflects the planned scope of work to be accomplished in 2013 as well as the scope of work left to be performed. The current estimate for replacement in 2013 is approximately 83 miles of mainline underground cable, which includes cables replaced and those that may fail VLF testing. Estimates of cost, units of work, and schedules for that work may evolve over time.

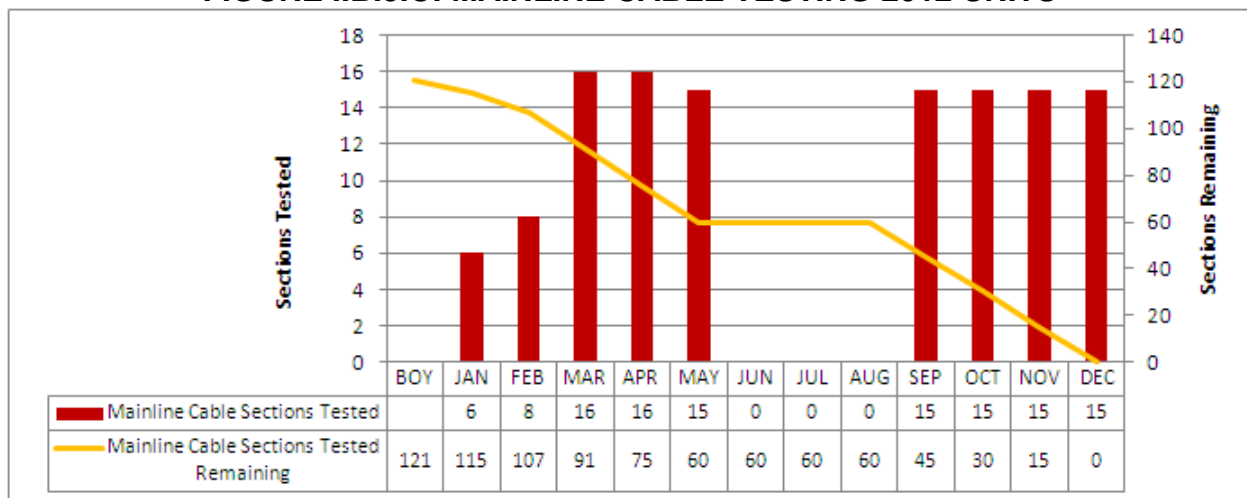
FIGURE I.B.5.B: MAINLINE CABLE REPLACEMENT 2013 UNITS



Cable Testing

Figure I.B.5.C shows the estimated number of sections of mainline cable to be VLF tested in 2013. This chart will serve as a tracking mechanism over the course of the year. This chart reflects the scope of work planned to be accomplished in 2013 as well as the scope of work left to be performed. It is estimated that approximately 121 sections of mainline cable will be VLF tested in 2013. Estimates of cost, units of work, and schedules for that work may evolve over time.

FIGURE I.B.5.C: MAINLINE CABLE TESTING 2012 UNITS



SECTION I.C: Ridgeland 69kV Cable Replacement

I.C.1: 2013 Program Scope

The Ridgeland 69kV cable system is approximately 40.5 circuit miles, composed of four cable subsystems: Solid Paper Lead (“PL”), Cross-Link Polyethylene (“XLPE”), Low Pressure Fluid Filled (“LPFF”), and High Pressure Fluid Filled (“HPFF”).

The cable replacement program for the Ridgeland area began in 1998, targeting poor-performing paper insulated lines. The majority of the paper insulated lines that are being replaced were installed in the early 1950’s, although some were installed as early as 1927. Replacement of circuits with the reliable XLPE cable systems will increase the long term reliability in the area. The focus of the 2013 program is to replace approximately 1.4 circuit miles.

I.C.2: 2013 Program Schedule

Figure I.C.2 presents the estimated schedule to complete the Ridgeland 69kV Cable Replacement 2013 scope of work. Estimates of cost, units of work, and schedules for that work may evolve over time. The schedule consists of high level tasks for the scope of work associated with the 2013 Plan, including the following key tasks:

- Ramp-up period
- Establish replacement priority for the calendar year
- Perform scoping and configuration analysis; review sequence for capacity issues
- Perform design tasks, procure material, and identify required outages in schedule; include identified joint issues in evaluation

- Planning (develop work packages and secure permits)
- Construction – Remove old cable
- Construction – Pull / install new cable and splice
- Cable commissioning (test cable and liven)

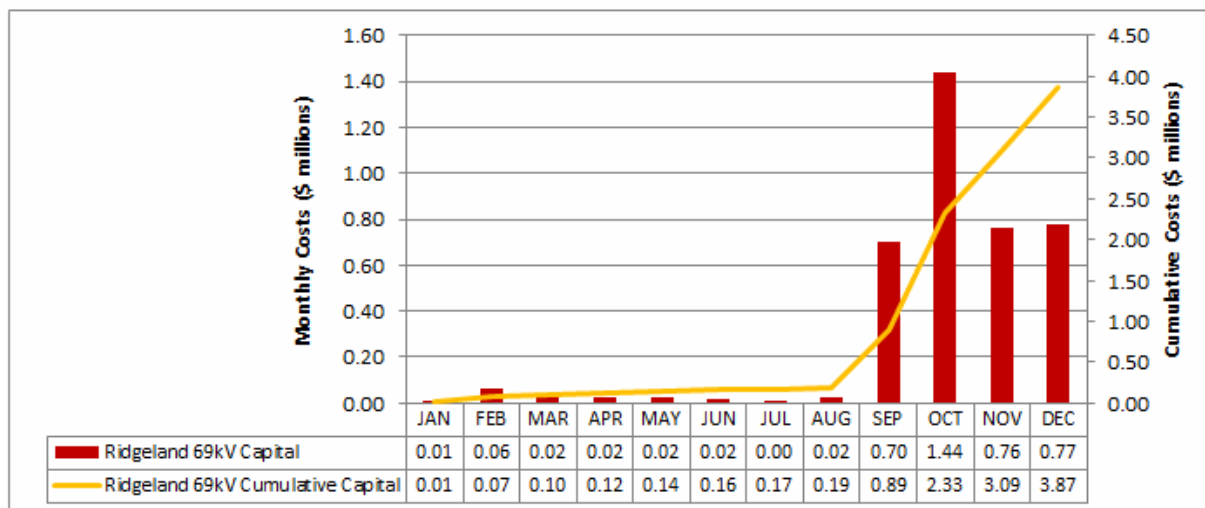
FIGURE I.C.2: RIDGELAND 69KV CABLE REPLACEMENT 2013 SCHEDULE

| Activity ID | Activity Name | Cal. Days | Start | Finish | 2013 | | | | 2014 | | | | 2015 | | | | 2016 | | | | UT / |
|---|---|-----------|------------|-----------|------|---|---|---|------|---|---|---|------|---|---|---|------|---|---|--|------|
| | | | | | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | | |
| CIIP - Ridgeland 69kV Cable Replacement | | | | | | | | | | | | | | | | | | | | | |
| Ridgeland 69kV Cable Replacement | | | | | | | | | | | | | | | | | | | | | |
| 69kV - 2013 [L.19201 26TH & Cicero Terminal to Cicero TSS 59] | | | | | | | | | | | | | | | | | | | | | |
| 69K2-13-1-1020 | Manhole Inspections | 20 | 03-Jan-13 | 22-Jan-13 | | | | | | | | | | | | | | | | | |
| 69K2-13-1-1025 | Phase 2 Presentation | 28 | 01-Feb-13* | 28-Feb-13 | | | | | | | | | | | | | | | | | |
| 69K2-13-1-1030 | Design Drawings | 31 | 01-Mar-13 | 31-Mar-13 | | | | | | | | | | | | | | | | | |
| 69K2-13-1-1040 | Bid & Award Cable | 30 | 01-Apr-13 | 30-Apr-13 | | | | | | | | | | | | | | | | | |
| 69K2-13-1-1050 | Bid & Award Install | 30 | 01-Apr-13 | 30-Apr-13 | | | | | | | | | | | | | | | | | |
| 69K2-13-1-1060 | Outage | 104 | 03-Sep-13 | 15-Dec-13 | | | | | | | | | | | | | | | | | |
| 69K2-13-1-1070 | Construction - ID & Cut Cable | 5 | 03-Sep-13 | 07-Sep-13 | | | | | | | | | | | | | | | | | |
| 69K2-13-1-1080 | Construction - Cable Removal & Splice Removal | 39 | 10-Sep-13 | 18-Oct-13 | | | | | | | | | | | | | | | | | |
| 69K2-13-1-1090 | Construction - Install Cable | 40 | 19-Oct-13 | 27-Nov-13 | | | | | | | | | | | | | | | | | |
| 69K2-13-1-1100 | Construction - Splice Cable | 13 | 18-Nov-13 | 30-Nov-13 | | | | | | | | | | | | | | | | | |
| 69K2-13-1-1110 | Construction - Build Terminations | 5 | 01-Dec-13 | 05-Dec-13 | | | | | | | | | | | | | | | | | |
| 69K2-13-1-1120 | Final Jacket Test | 2 | 10-Dec-13 | 11-Dec-13 | | | | | | | | | | | | | | | | | |
| 69K2-13-1-1125 | T&S Install leads @ SS | 5 | 10-Dec-13 | 14-Dec-13 | | | | | | | | | | | | | | | | | |
| 69K2-13-1-1130 | Ready to Start Inspection | 2 | 12-Dec-13 | 13-Dec-13 | | | | | | | | | | | | | | | | | |
| 69K2-13-1-1140 | 24 Hour Soak | 2 | 13-Dec-13 | 14-Dec-13 | | | | | | | | | | | | | | | | | |

I.C.3: 2013 Program Budget

Figure I.C.3 presents the estimated 2013 capital budget for the Ridgeland 69kV Cable Replacement program. ComEd estimates the 2013 program cost to be capital investments of \$4 million, plus associated expenses. Estimates of cost, units of work, and schedules for that work may evolve over time.

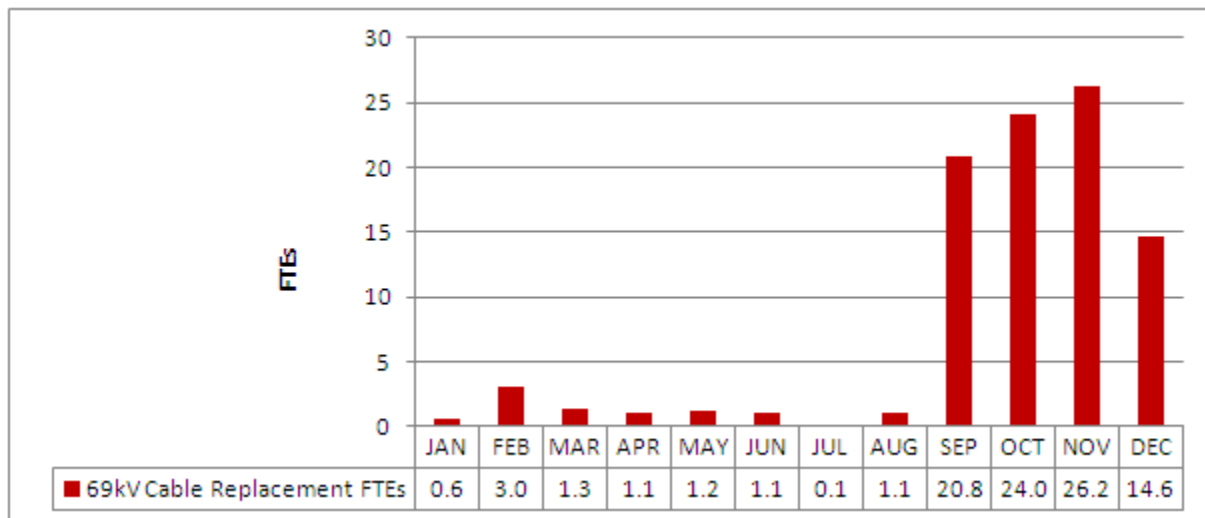
FIGURE I.C.3: RIDGELAND 69KV REPLACEMENT CAPITAL BUDGET



I.C.4: 2013 Program FTEs

Figure I.C.4 presents the estimated Assigned Direct and Assigned Contractor FTEs required to perform the specific scheduled 2013 scope of work. Assigned FTEs have been calculated by taking the estimated worker-hours assigned to execute the scope of work and dividing by 2,080 hours. The estimated FTEs presented in Figure I.C.4 include Assigned FTEs, however, they do not include Support FTEs or Induced FTEs.

FIGURE I.C.4: RIDGELAND 69KV CABLE REPLACEMENT 2013 FTEs



SECTION I.D: Construction of Training Facilities

No work is scheduled in 2013 associated with the construction of training facilities.

SECTION I.E: Wood Pole Inspection, Treatment and Replacement

I.E.1: 2013 Program Scope

The 2013 Wood Pole Inspection, Treatment and Replacement program entails inspection and required treatment of an estimated 149,000 poles. Wood pole replacements and reinforcements generally lag inspections by one year. Based on ComEd's past inspection experience, about 4,000 pole replacements or reinforcements are estimated to be identified from the inspections conducted in 2012.

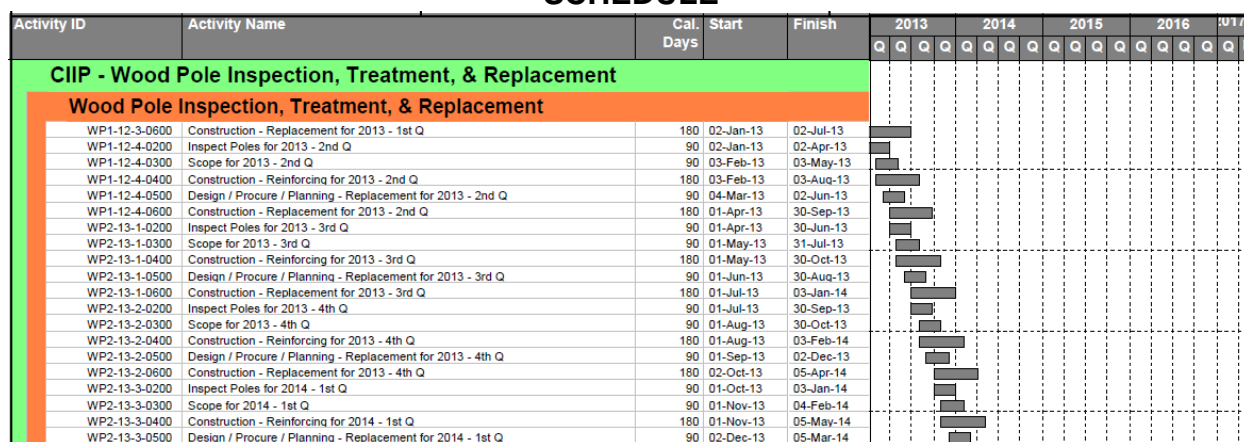
I.E.2: 2013 Program Schedule

Figure I.E.2 presents the estimated 2013 schedule to complete the Wood Pole Inspection, Treatment and Replacement program. Estimates of cost, units of work, and schedules for that work may evolve over time. The schedule consists of high level tasks for the scope of work associated with the 2013 Plan, including the following tasks:

- Ramp-up period
- Establish work priority for the calendar year
- Perform inspections
- Perform scoping and configuration analysis for pole treatments or replacements
- Perform design tasks, procure material, and identify required outages in schedule

- Planning (develop work packages and secure permits)
- Construction – replace, treat or reinforce poles
- Liven circuits

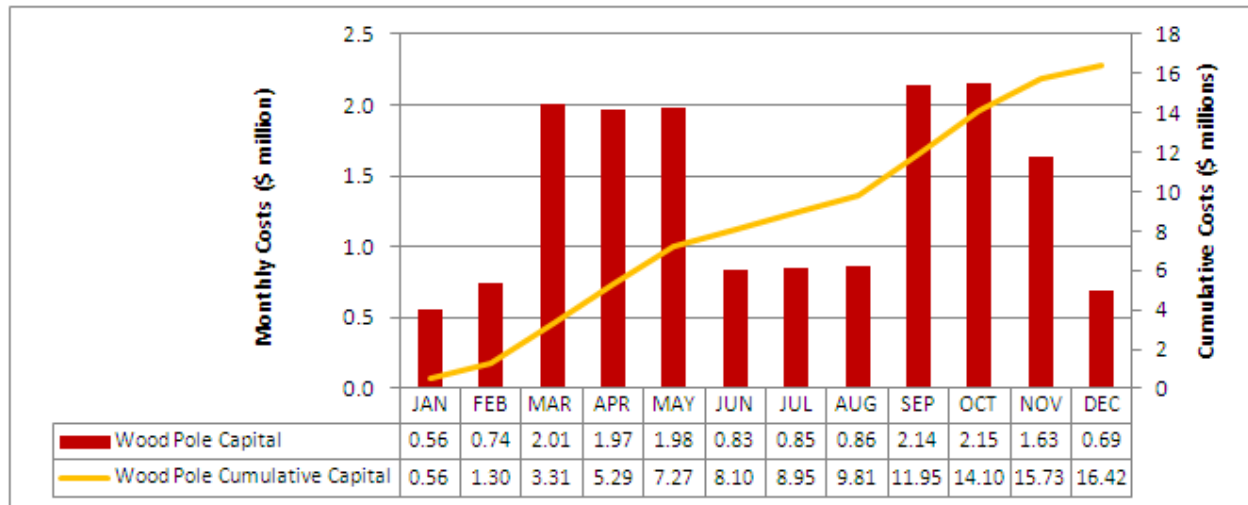
FIGURE I.E.2: WOOD POLE INSPECTION, TREATMENT AND REPLACEMENT 2013 SCHEDULE



I.E.3: 2013 Program Budget

Figure I.E.3 presents the estimated 2013 capital budget for the Wood Pole Inspection, Treatment and Replacement program. ComEd estimates the 2013 program cost to be capital investments of \$16 million, plus associated expenses. Estimates of cost, units of work, and schedules for that work may evolve over time.

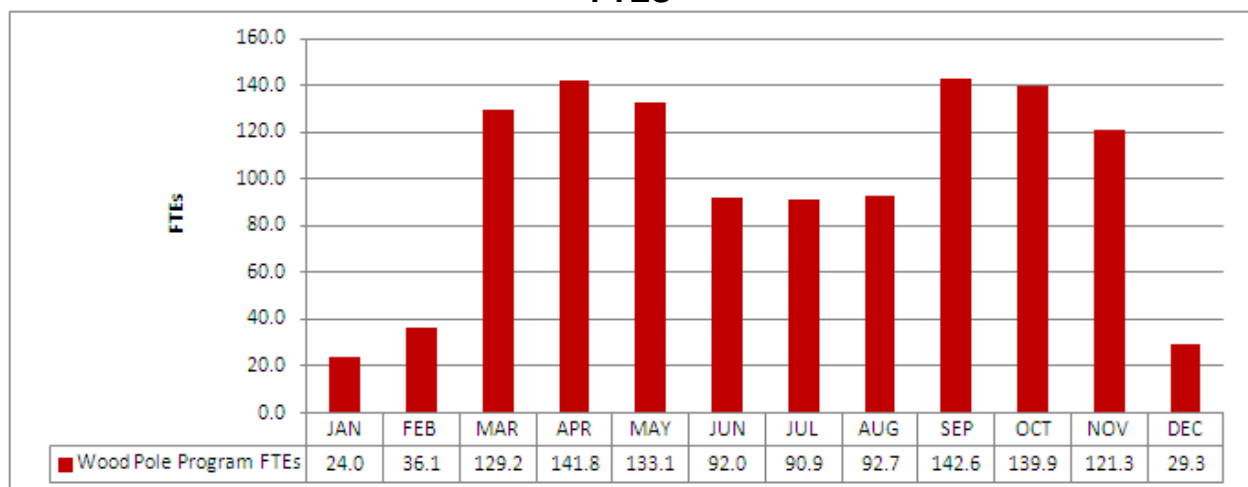
FIGURE I.E.3: WOOD POLE INSPECTION, TREATMENT AND REPLACEMENT 2013 CAPITAL BUDGET



I.E.4: 2013 Program FTEs

Figure I.E.4 presents the estimated Assigned Direct and Assigned Contractor FTEs required to perform the specific scheduled 2013 scope of work. Assigned FTEs have been calculated by taking the estimated worker-hours assigned to execute the scope of work and dividing by 2,080 hours. The estimated FTEs presented in Figure I.E.4 include Assigned FTEs; however, they do not include Support FTEs or Induced FTEs.

FIGURE I.E.4: WOOD POLE INSPECTION, TREATMENT AND REPLACEMENT 2013 FTEs

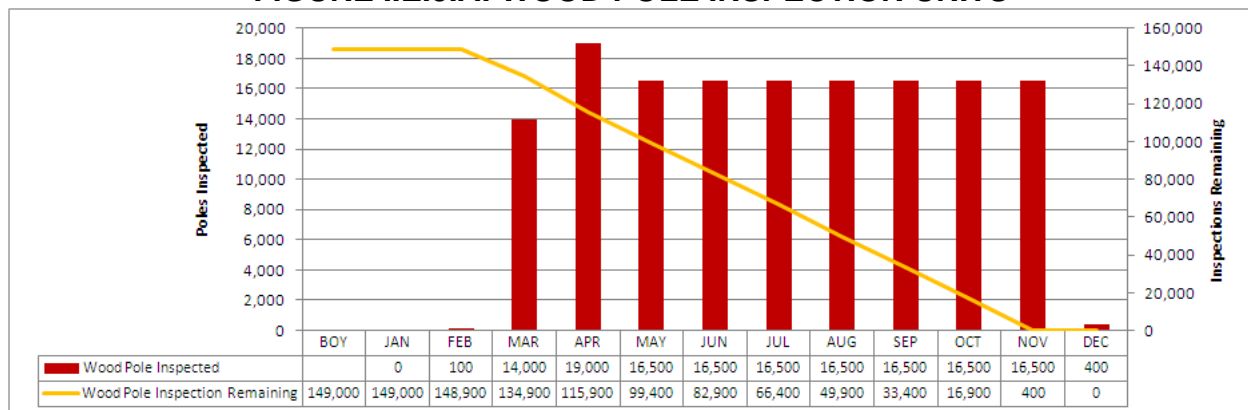


I.E.5: 2013 Program Units

Wood Pole Inspection

Figure I.E.5.A shows the estimated quantity of wood poles to be inspected in 2013. This chart will serve as a tracking mechanism over the course of the year, and reflects the scope of work planned to be accomplished as well as the scope of work left to be performed. It is estimated that approximately 149,000 wood poles will be inspected in 2013. Estimates of cost, units of work, and schedules for that work may evolve over time.

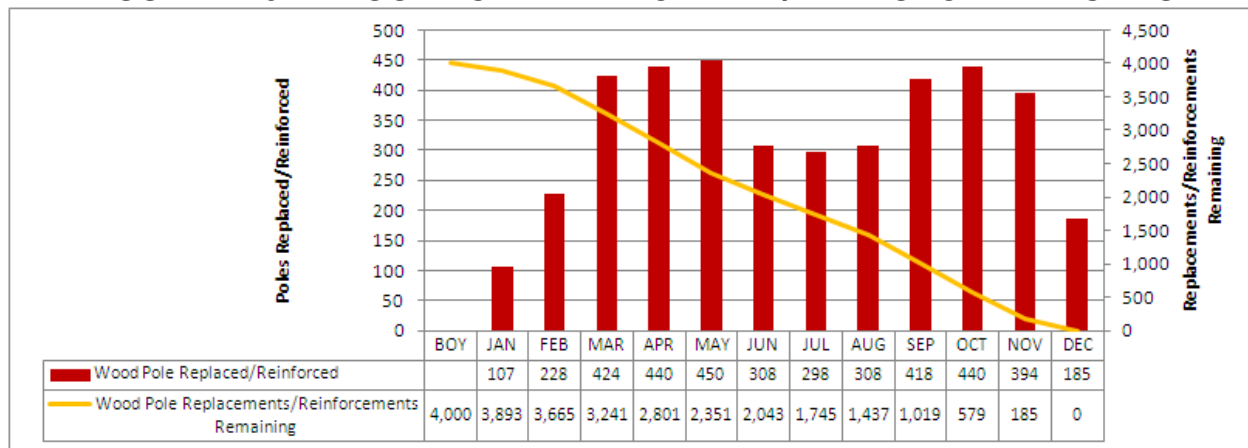
FIGURE I.E.5.A: WOOD POLE INSPECTION UNITS



Wood Pole Replacement/Reinforcement

Figure I.E.5.B shows the estimated quantity of wood poles to be replaced/reinforced in 2013. These charts will serve as a tracking mechanism over the course of the year, and reflect the scope of work planned to be accomplished as well as the scope of work left to be performed. It is estimated that approximately 4,000 wood poles will be replaced/reinforced in 2013. Estimates of cost, units of work, and schedules for that work may evolve over time. This estimate is based on assumptions concerning inspection results which will be adjusted over time as actual data become available. Early estimates of wood pole replacement/reinforcements such as these, therefore, contain a high degree of uncertainty and are not intended to reflect firm scope.

FIGURE I.E.5.B: WOOD POLE REPLACEMENT/REINFORCEMENT UNITS



SECTION I.F: Storm Hardening

I.F.1: 2013 Program Scope

Storm hardening is designed to further reduce the susceptibility of certain circuits to storm-related damage, including but not limited to high winds, thunderstorms, and ice storms. Improvements may include, but are not limited to, overhead to underground conversion, installation of tree-resistant cable, additional vegetation management and other engineered solutions. This program is aimed at hardening facilities in accordance with the directives of Section 16-108.5(b) (1)(A)(iv) of the Act, and is not directed at any defect or failure to properly design, engineer, construct, or maintain the existing system. Additionally, while storm hardening is designed to further reduce the susceptibility of circuits to storm-related damage, it does not make circuits immune to damage from storms or other sources.

Circuits will be prioritized based on each circuit's historical susceptibility to storm-related damage and the ability to provide the greatest customer benefit upon completion of the improvement.

For a circuit to be eligible for improvement, ComEd's ability to maintain proper tree clearances surrounding the overhead circuit must not have been impeded by third parties.

Considerations for storm hardening of circuits include, but are not limited to:

- Mainline Circuits - (Focus on circuits with the highest customer storm impact)
 - 4kV and 12kV overhead circuits

- Prioritized by weighted reliability (SAIFI, Customers Served) and vegetation scores from 2008 to 2012
- Circuits with fewer than 500 customers
- Engineering review for determining targeted mainline portions and hardening solution
- Circuit Taps - (Focus on circuits with pocket area storm duration impact)
 - 4kV and 12kV overhead circuits
 - Prioritized by weighted reliability (SAIFI, customer Interruptions) and vegetation scores from 2008 to 2012
 - Circuit tap must meet vegetation outage and CAIDI gates
- Engineering review for determining tap portions and hardening solutions (e.g., URD, spacer cable, and enhanced trimming)

The 2013 scope for this program will consist of prioritizing circuits and identification of appropriate hardening solutions for each, and addressing 2013 priority circuits

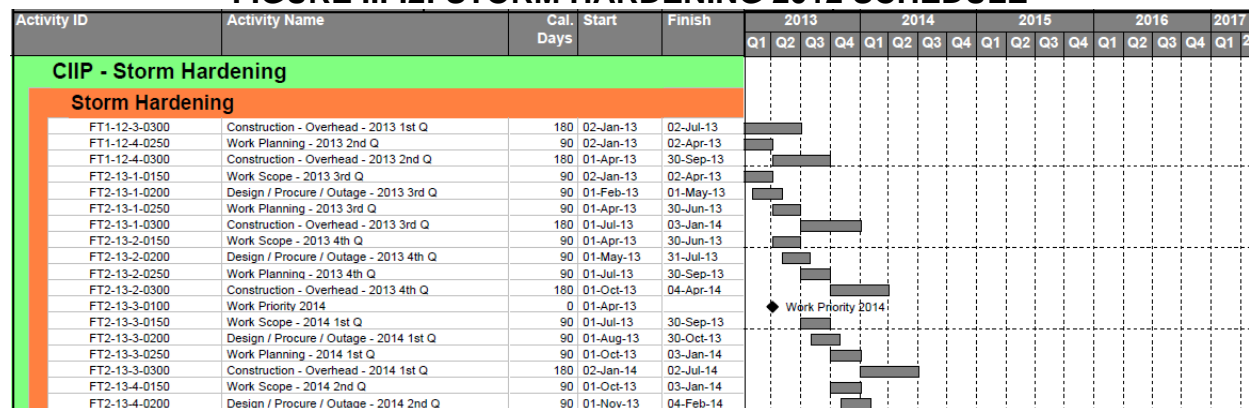
I.F.2: 2013 Program Schedule

Figure I.F.2 presents the estimated schedule to complete the Storm Hardening program. Estimates of cost, units of work, and schedules for that work may evolve over time. The schedule consists of high level tasks for the scope of work associated with the 2013 Plan, including the following key tasks:

- Ramp-up period

- Establish priority for the calendar year
- Perform scoping and configuration analysis; review sequence for capacity issues
- Perform design tasks, procure material, and identify required outages in schedule
- Planning (develop work packages and secure permits)
- Construction – Install conduit when required
- Construction – Cable terminal pole work
- Construction – Install cable / overhead conductor / other engineered solutions
- Test cable / conductor and liven

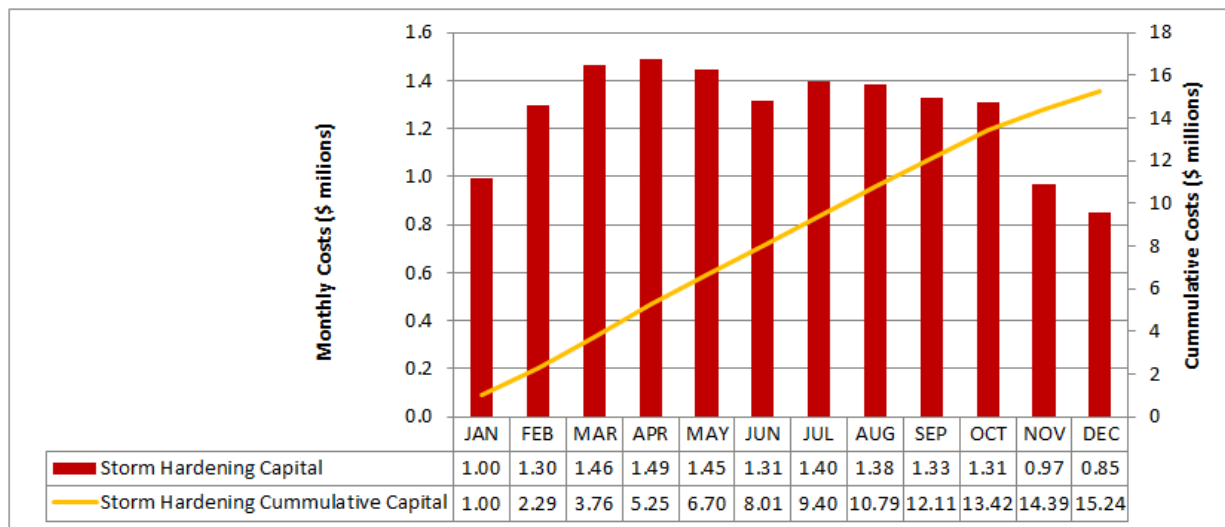
FIGURE I.F.2: STORM HARDENING 2012 SCHEDULE



I.F.3: 2013 Program Budget

Figure I.F.3 presents the estimated 2013 capital budget for the Storm Hardening program. ComEd estimates the 2013 program cost to be capital investments of \$15 million, plus associated expenses. Estimates of cost, units of work, and schedules for that work may evolve over time.

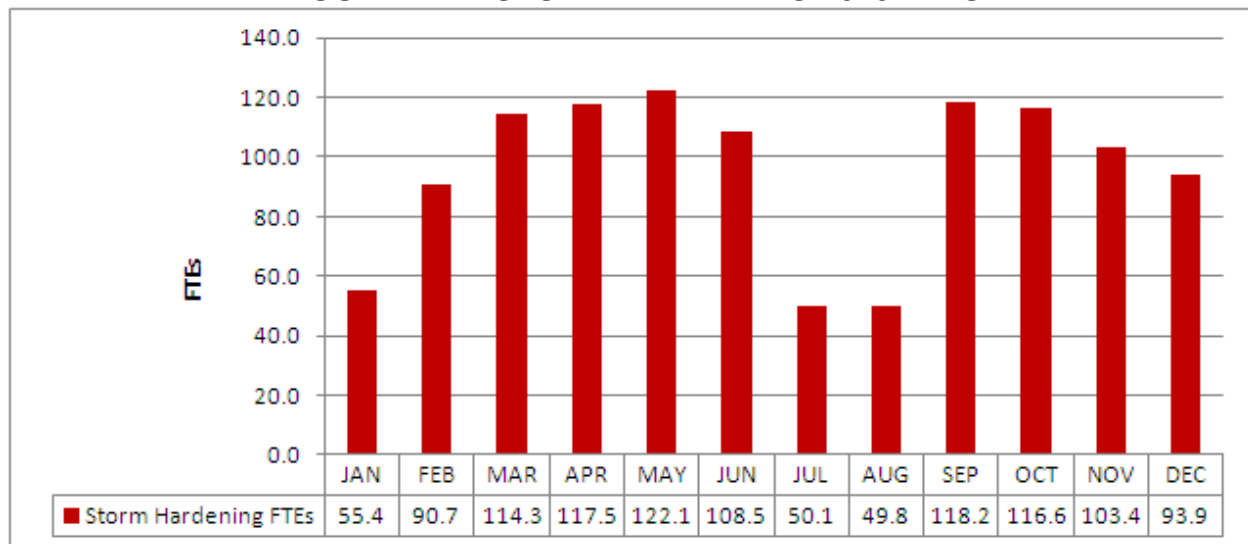
FIGURE I.F.3: STORM HARDENING 2013 CAPITAL BUDGET



I.F.4: 2013 Program FTEs

Figure I.F.4 presents the estimated Assigned Direct and Assigned Contractor FTEs required to perform the specific scheduled 2013 scope of work. Assigned FTEs have been calculated by taking the estimated worker-hours assigned to execute the scope of work and dividing by 2,080 hours. The estimated FTEs presented in Figure I.F.4 include Assigned FTEs; however, they do not include Support FTEs or Induced FTEs.

FIGURE I.F.4: STORM HARDENING 2013 FTEs



SECTION II: Smart Grid-Related Investments

SECTION II.A: Distribution Automation

II.A.1: 2013 Program Scope

Distribution Automation (“DA”) technology uses “sectionalizing” devices and remote communications to detect issues on the distribution system and automatically re-route power, accordingly, to minimize the number of customers impacted. This is commonly referred to as the self-healing nature of the Smart Grid.

The ComEd DA technologies include:

- Field sectionalizing devices to detect and isolate faults at various segments of the distribution system;
- A radio system to remotely transmit and relay control functions and indicate the status of various system parameters; and
- The computer systems that control, operate, monitor and store the data for the DA system.

The DA program targets installing DA field devices, and also encompasses the replacement of the older 900 MHZ radio system with a new higher security system that meets newly-established government regulations. In addition, the older 34kV field devices will be upgraded to the newer Intelli-team (“IT-2”) software to allow for better flexibility with fault isolation and operation with the new radio system.

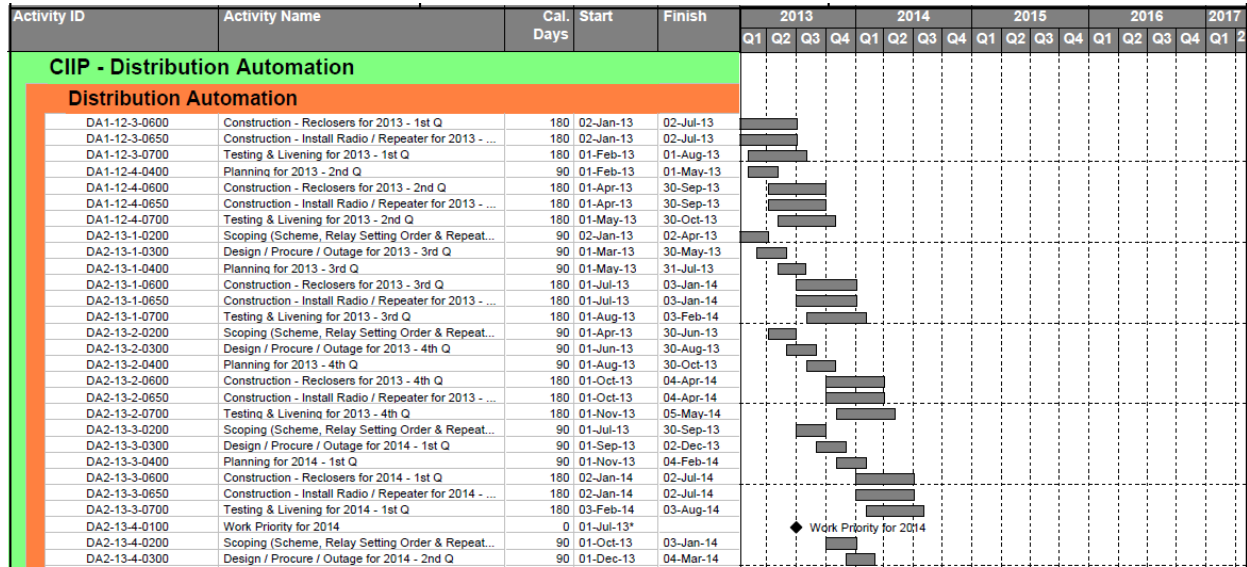
The DA program includes the planned installation of an estimated 630 new DA devices in 2013.

II.A.2: 2013 Program Schedule

Figure II.A.2 presents the estimated schedule to complete the DA 2013 scope. Estimates of cost, units of work, and schedules for that work, may evolve over time. The schedule consists of high level tasks for the scope of work associated with the 2013 Plan, including the following key tasks:

- Ramp-up period
- Establish priority for the calendar year
- Perform scoping
- Perform design tasks, procure material, and identify required outages in schedule
- Planning (develop work packages and secure permits)
- Construction – install reclosers
- Construction – install radios, repeaters
- Test and liven

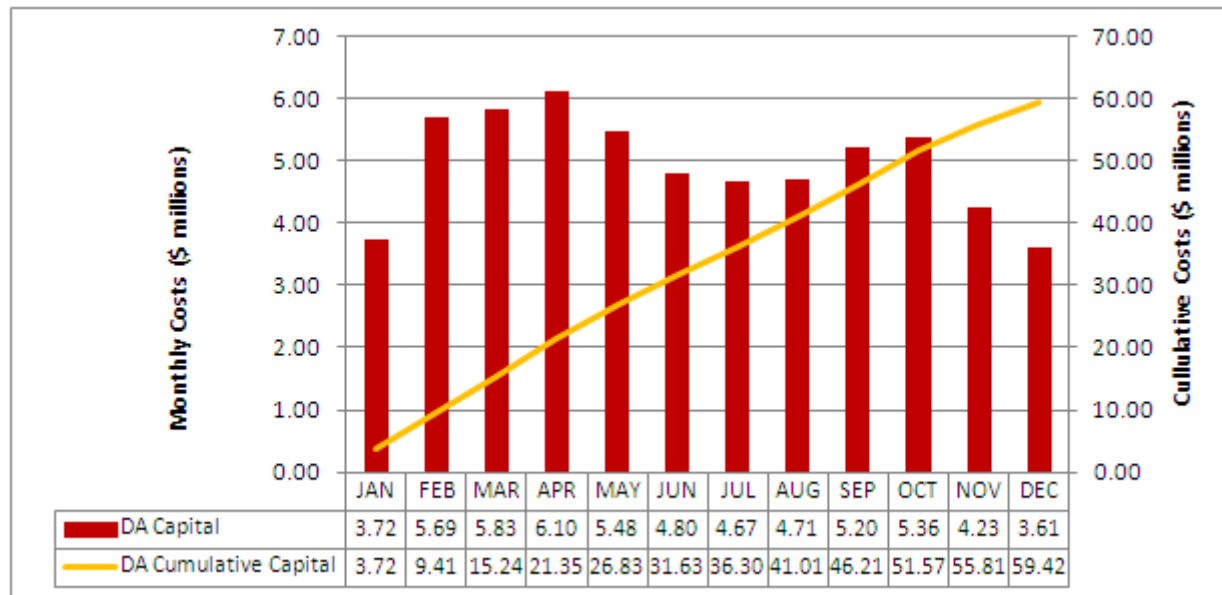
FIGURE II.A.2: DISTRIBUTION AUTOMATION 2013 SCHEDULE



II.A.3: 2013 Program Budget

Figure II.A.3 presents the estimated 2013 capital budget for the DA program. ComEd estimates the program cost to be capital investments of \$59 million, plus associated expenses. Estimates of cost, units of work, and schedules for that work may evolve over time.

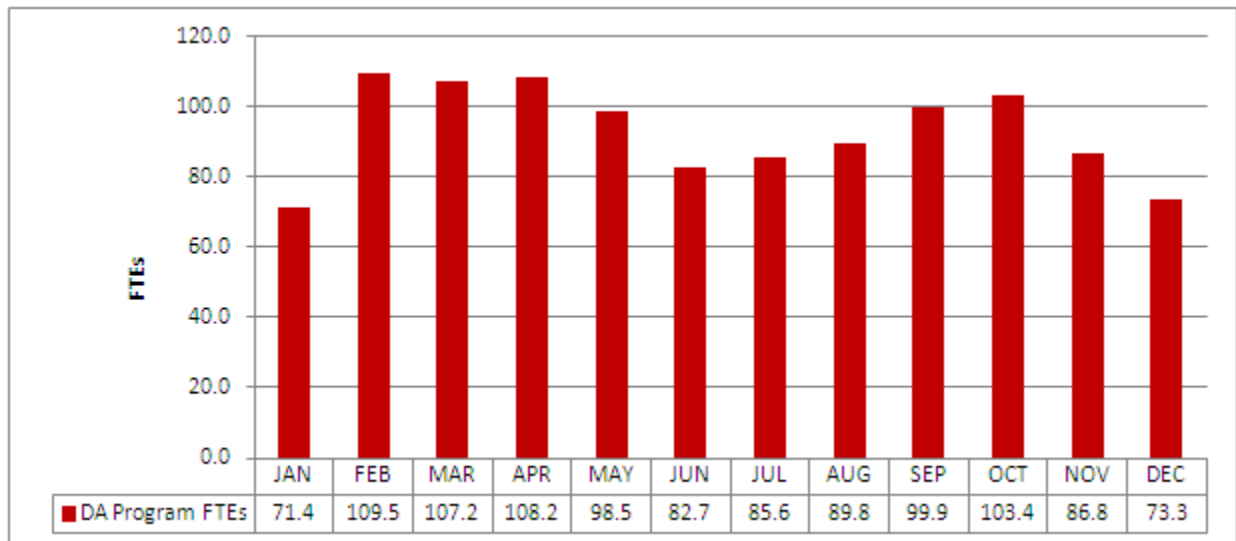
FIGURE II.A.3: DISTRIBUTION AUTOMATION 2013 CAPITAL BUDGET



II.A.4: 2013 Program FTEs

Figure II.A.4 presents the estimated Assigned Direct and Assigned Contractor FTEs required to perform the specific scheduled 2013 scope of work. Assigned FTEs have been calculated by taking the estimated worker-hours assigned to execute the scope of work and dividing by 2,080 hours. The estimated FTEs presented in Figure II.A.4 include Assigned FTEs; however, they do not include Support FTEs or Induced FTEs.

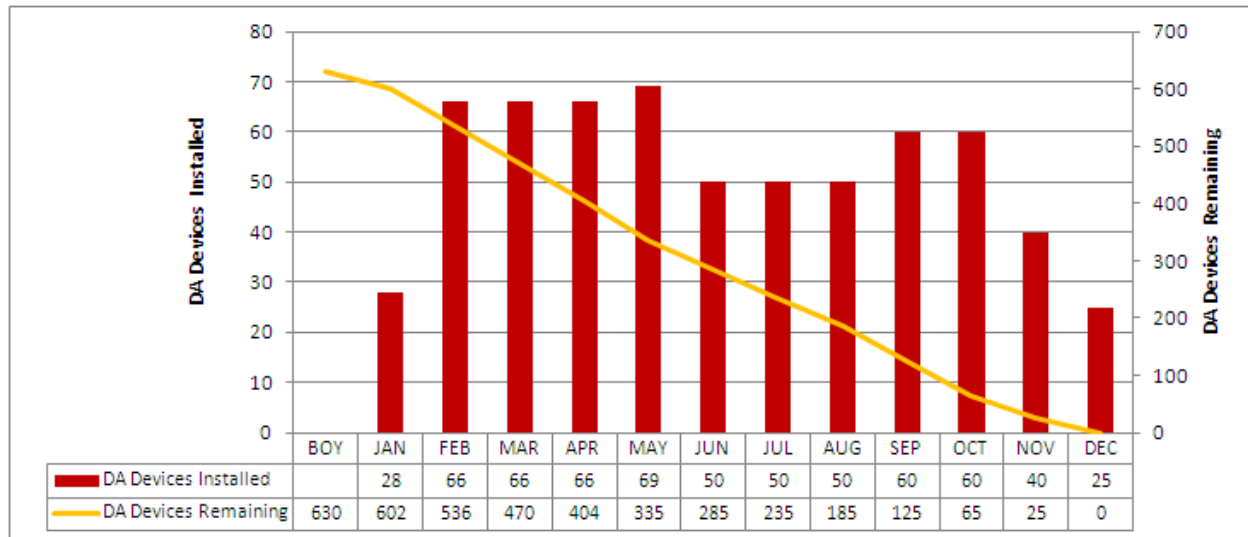
FIGURE II.A.4: DISTRIBUTION AUTOMATION 2013 FTEs



II.A.5: 2013 Program Units

Figure II.A.5 presents the estimated quantity of DA devices to be installed in 2013. This chart will serve as a tracking mechanism over the course of the year, and reflects the scope of work to be accomplished, as well as the scope of work left to be performed. It is estimated that approximately 630 DA devices will be installed in 2013. Estimates of cost, units of work, and schedules for that work may evolve over time.

FIGURE II.A.5 DISTRIBUTION AUTOMATION UNITS



SECTION II.B: Substation Micro-Processor Relay Upgrades

II.B.1: 2013 Program Scope

This program is planned to modernize ten ComEd substations, including upgrade of electro-mechanical protective relays to modern microprocessor-based devices, replacement of aging circuit breakers, enabling two-way communications between ComEd's control center and each substation, and installation of technology to remotely monitor the health of ComEd's largest assets, its transformers. This program provides for fault detection, remote asset monitoring, improved site security, and dynamic voltage regulation. Partial upgrades may be applied across the service territory. ComEd has over 250 transmission-fed substations, and over 800 substations in total.

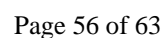
The 2013 scope of work for this program includes upgrade of ComEd's Clearing and Franklin Park substations, and initial design and engineering for an additional two substations that are planned for upgrade in 2014.

II.B.2: 2013 Program Schedule

Figure II.B.2 presents the estimated schedule to complete the 2013 Substation Micro-Processor Relay Upgrades scope of work. Estimates of cost, units of work, and schedules for that work may evolve over time. The schedule consists of high level tasks for the scope of work associated with the 2013 Plan, including the following key tasks:

- Ramp-up period
- Establish priority for the calendar year
- Perform scoping

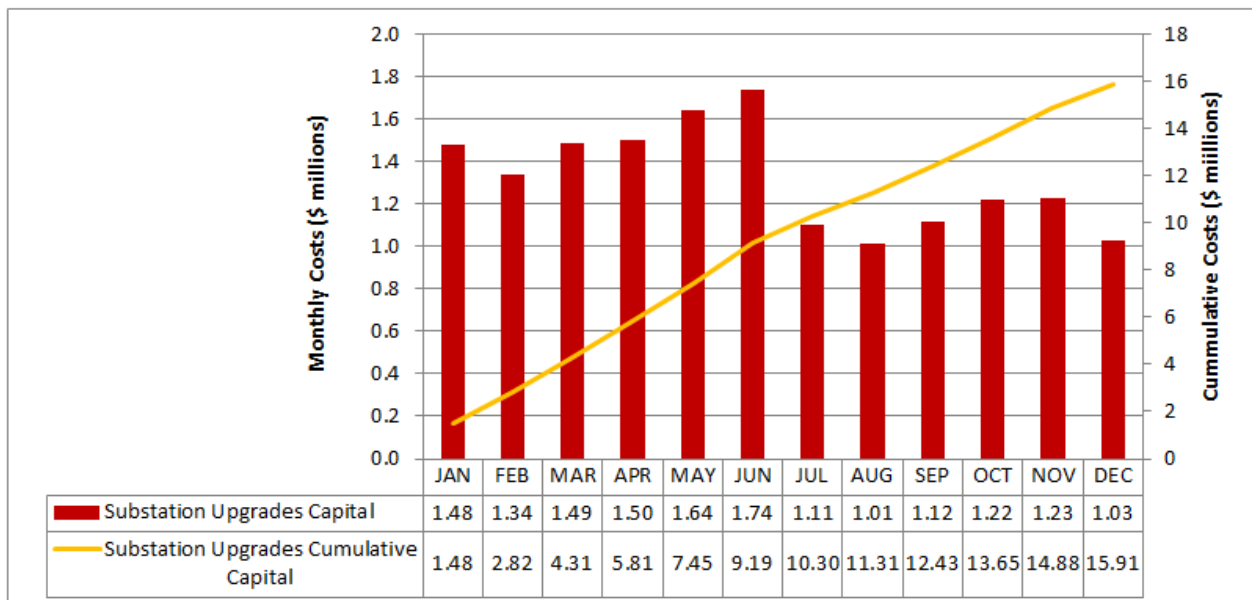
- FIGURE II.B.2: SUBSTATION MICRO-PROCESSOR RELAY UPGRADE 2013 SCHEDULE**



II.B.3: 2013 Program Budget

Figure II.B.3 presents the estimated 2013 capital budget for the Substation Micro-Processor Relay Upgrade program. ComEd estimates the 2013 program cost to be capital investments of \$16 million, plus associated expenses. Estimates of cost, units of work, and schedules for that work may evolve over time.

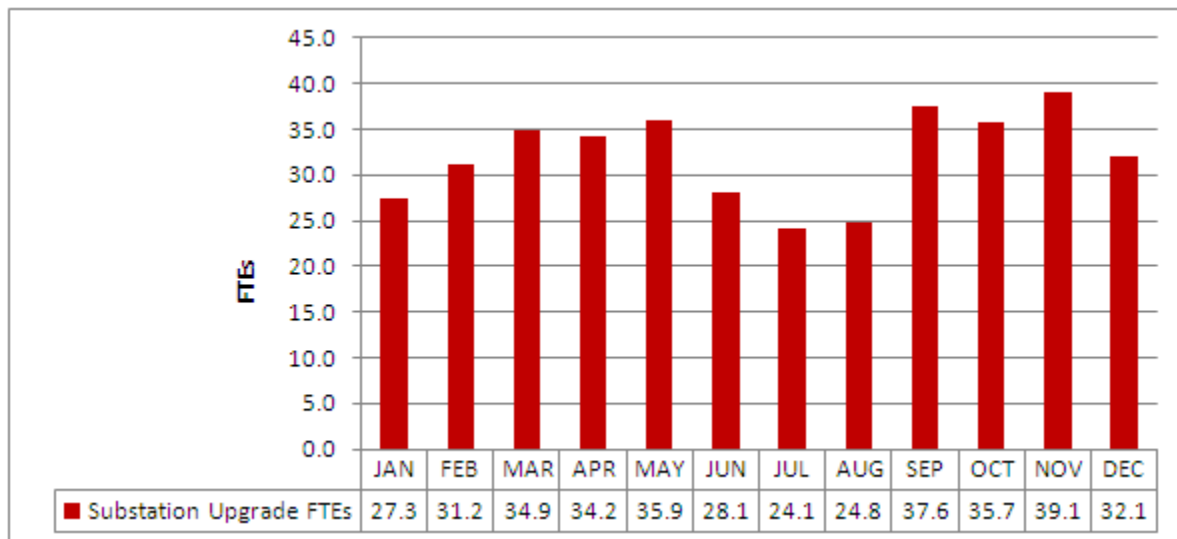
FIGURE II.B.3: SUBSTATION MICRO-PROCESSOR RELAY UPGRADE 2013 CAPITAL BUDGET



II.B.4: 2013 Program FTEs

Figure II.B.4 presents the estimated Assigned Direct and Assigned Contractor FTEs required to perform the specific scheduled 2013 scope of work. Assigned FTEs have been calculated by taking the estimated worker-hours assigned to execute the scope of work and dividing by 2,080 hours. The estimated FTEs presented in Figure II.B.4 include Assigned FTEs; however, they do not include Support FTEs or Induced FTEs.

FIGURE II.B.4: SUBSTATION MICRO-PROCESSOR RELAY UPGRADE 2013 FTES



SECTION II.C: Smart Meters

Deployment of Smart Meters will occur pursuant to the Advanced Metering Infrastructure Deployment Plan (“AMI Plan”), which was approved by the Commission on December 5, 2012, and the 2013 AMI Report. Please refer to the 2013 AMI Report for specific details, which are incorporated into this 2013 Plan by reference.

Appendix A: Summary-Level Plan Information

As required by Section 16-108(b), the total estimated \$227 million of cumulative capital investment under the 2013 Plan will be incremental to ComEd's total annual capital investment program, as defined in Section 16-108.5(b). That is, over the course of 2013, ComEd will invest an estimated cumulative total of \$227 million more capital than a capital investment program that invested at an annual rate defined by ComEd's average capital spend for calendar years 2008, 2009, and 2010, as reported in ComEd's applicable Federal Energy Regulatory Commission ("FERC") Form 1s.

Table A.1 presents a summary of the 2013 Plan's estimated total capital budget by program; and Figure A.2 presents the estimated total capital budget by month associated with the 2013 Plan.

TABLE A.1: 2013 PLAN CAPITAL COSTS BY PROGRAM

| Program | Total Capital (\$M) |
|--|----------------------------|
| <i>URD Injection and Replacement Program</i> | <i>\$58</i> |
| <i>Mainline Cable System Refurbishment and Replacement Program</i> | <i>\$54</i> |
| <i>Ridgeland 69kV Cable Program</i> | <i>\$4</i> |
| <i>Training Facilities Program</i> | <i>\$0</i> |
| <i>Wood Pole Program</i> | <i>\$16</i> |
| <i>Storm Hardening Program</i> | <i>\$15</i> |
| Total Reliability-Related Investments | \$148 |
| <i>Distribution Automation Program</i> | <i>\$59</i> |
| <i>Substation Micro-Processor Relay Upgrade Program</i> | <i>\$16</i> |
| <i>Smart Meter Program</i> | <i>\$4</i> |
| Total Smart Grid Related Investments | \$79 |
| Total Plan Investments | \$227 |

FIGURE A.2: 2013 PLAN CAPITAL ESTIMATE BY MONTH

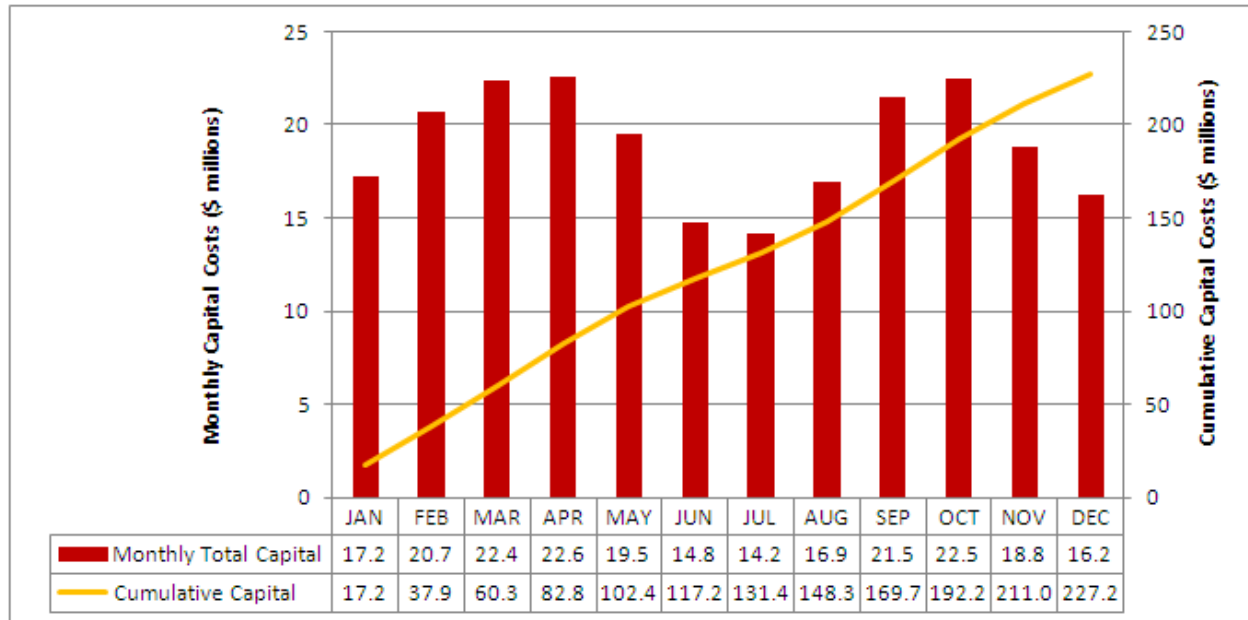


Figure A.3 presents the estimated Assigned FTEs and Support FTEs to execute the entire scheduled scope of work associated with the 2013 Plan. Estimates for Support FTEs in the 2013 Plan are based on the 2012 actual proportion of Assigned FTEs to Support FTEs. The estimated FTEs presented in this 2013 Plan include Direct jobs and Contractor positions; however, they do not include any Induced FTEs.

FIGURE A.3: 2013 PLAN FTEs

